SPORTSMANS PARK BINGHAM COUNTY WELL (PWS 6060079)
SOURCE WATER ASSESSMENT FINAL REPORT

June 18, 2001

State of Idaho
Department of Environmental Quality

Under the Federal Safe Drinking Water Act Amendments of 1996, all states are required by the U.S. Environmental Protection Agency (EPA) to assess every source of public drinking water for its relative sensitivity to contaminants regulated by the Act. The Idaho Department of Environmental Quality (DEQ) is completing the assessments for all Idaho public drinking water systems. The assessment for the Sportsmans Park drinking water source is based on a land use inventory within a 1,000 foot radius of the well source, sensitivity factors associated with the source, and characteristics associated with either your aquifer or watershed in which you live.

This report, *Source Water Assessment for Sportsmans Park Well (PWS # 6060079)* describes the public drinking water system, the associated potential contaminant sources located within a 1,000 foot boundary around the drinking water source, and the susceptibility (risk) that may be associated with any associated potential contaminants. This assessment should be used as a planning tool, taken into account with local knowledge and concerns, to develop and implement appropriate protection measures for this system. **The results should <u>not be</u> used as an absolute measure of risk and they should <u>not be</u> used to undermine public confidence in the Sportsmans Park water system.**

The Sportsmans Park drinking water system is located in the southwest corner of Bingham County (Figure 1). This system consists of one well located approximately 400 feet west of the American Falls Reservoir. At this time, there appears to be no primary water quality issues facing the system.

The susceptibility of the well to contamination was ranked as high, moderate, or low risk according to the following considerations: hydrologic sensitivity, system construction or physical integrity of the well, and land use characteristics including potentially significant contaminant sources. The susceptibility rankings are specific to a particular potential contaminant or category of contaminants. Therefore, a high susceptibility rating relative to one potential contaminant does not mean that the water system is at the same risk for all other potential contaminants. The relative ranking that is derived for each well is a qualitative, screening-level step that, in many cases, uses generalized assumptions and best professional judgement.

The hydrologic sensitivity is rated low for the well. This rating is due to soil drainage characteristics, the presence of significant confining layers (clay material) within the depth range of the completed well, and the composition of the vadose zone (zone from land surface to the water table).

Well construction directly affects the ability of the well to protect the aquifer from contaminants. The well system construction is assigned a moderate rating. The well is given an additional point because it could not be determined from the well log if it meets current well construction standards. Information obtained from the Southeast District Health Department 1999 Sanitary Survey shows that the well head seal is acceptable. Since the Sanitary Survey was conducted, a

Figure 1 - Geographic Location of Sportsmans Park Well in Bingham County PWS Number: 6060079

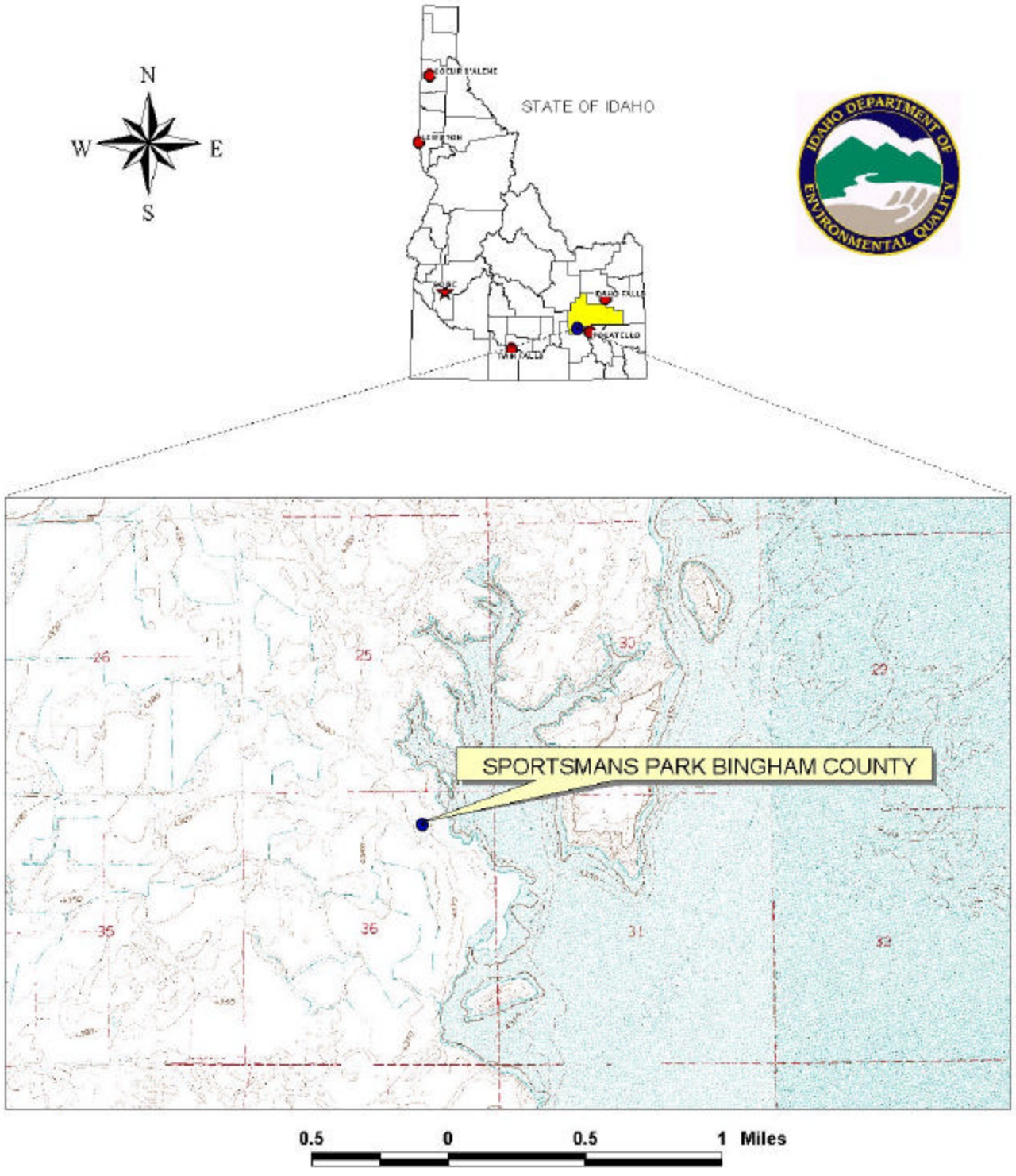
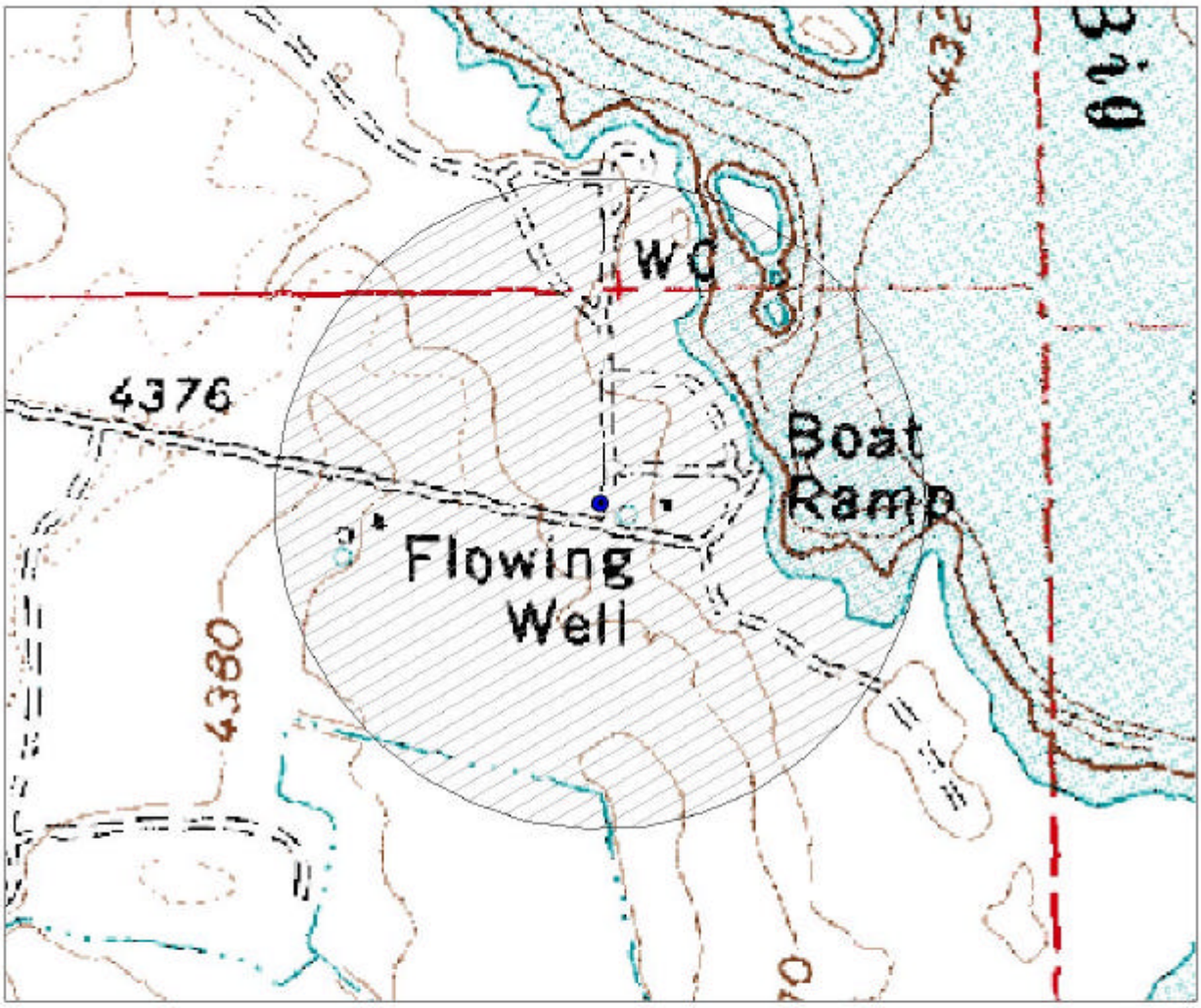


Figure 2 - Sportsmans Park Bingham County Well
PWS Number: 6060079



02/13/2001
Michelle Byrd

500 0 500 1000 Feet

N

LEGEND

Wellhead
Zone 1B - 1000' Fixed Radius

Note: Refer to Preliminary Contaminant Inventory Form for identification of the Potential Contaminant Sources (s).

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vent has been installed on the well. No additional information is available regarding the casing and annular seal extending into a low permeable geologic formation. Information relating to the depth-to-ground water could not be determined due to the flowing artesian condition of the well.

The final susceptibility ranking for the well is moderate for inorganic and synthetic organic contaminants, and low for volatile organic and microbial contaminants. The moderate score is based upon the land use within the 1000-foot boundary as greater than 50 percent irrigated and undetermined agriculture, and averages of county agriculture chemical use. No potential contaminant sources were identified within the 1000-foot radius from the well location (Figure 2). The summary table listed below indicates the relative susceptibility of the water system (Table 1). Also, a copy of the susceptibility analysis for the Sportsman Park water system is included with this report (Figure 3).

Table 1. Summary of Sportsmans Park Susceptibility Evaluation

	Susceptibility Scores[1]									
	Hydrologic Sensitivity	Contaminant Inventory				System Construction	**Final Susceptibility Ranking**			
Well		IOC	VOC	SOC	Microbials		IOC	VOC	SOC	Microbials
1	L	M	L	M	L	M	M	M	M	M

H = High Susceptibility, M = Moderate Susceptibility, L = Low Susceptibility
IOC = inorganic chemical, VOC = volatile organic chemical, SOC = synthetic organic chemical

This assessment should be used as a basis for determining appropriate new protection measures or re-evaluating existing protection efforts. No matter what ranking a source receives, protection is always important. Whether the source is currently located in a “pristine” area or an area with numerous industrial and/or agricultural land uses, the way to ensure good water quality in the future is to act now to protect valuable water supply resources.

For the Sportsmans Park water system, source water protection activities should continue to incorporate wellhead protection strategies. Although potential contaminant sources have not been identified in proximity to the well, other influences should be evaluated as potential contamination concerns including but not limited to direct surface water influences from American Falls Reservoir and on-site sewage systems identified in the Southeast District Health 1999 Sanitary Survey. Source water protection activities should be aimed at long-term management strategies even though these strategies may not yield results in the near term. For assistance in developing protection strategies please contact the Pocatello Regional Office of the Idaho Department of Environmental Quality at (208) 236-6160.

Ground Water Final Susceptibility Scoring:

0-5 = Low Susceptibility
6-12 = Moderate Susceptibility
13-18 = High Susceptibility

POTENTIAL CONTAMINANT INVENTORY LIST OF ACRONYMS AND DEFINITIONS

AST (Aboveground Storage Tanks) – Sites with aboveground storage tanks.

Business Mailing List – This list contains potential contaminant sites identified through a yellow pages database search of standard industry codes (SIC).

CERCLIS – This includes sites considered for listing under the **Comprehensive Environmental Response Compensation and Liability Act (CERCLA)**. CERCLA, more commonly known as "Superfund" is designed to clean up hazardous waste sites that are on the national priority list (NPL).

Cyanide Site – DEQ permitted and known historical sites/facilities using cyanide.

Dairy – Sites included in the primary contaminant source inventory represent those facilities regulated by Idaho State Department of Agriculture (ISDA) and may range from a few head to several thousand head of milking cows.

Deep Injection Well – Injection wells regulated under the Idaho Department of Water Resources generally for the disposal of stormwater runoff or agricultural field drainage.

Enhanced Inventory – Enhanced inventory locations are potential contaminant source sites added by the water system. These can include new sites not captured during the primary contaminant inventory, or corrected locations for sites not properly located during the primary contaminant inventory. Enhanced inventory sites can also include miscellaneous sites added by the Idaho Department of Environmental Quality (IDEQ) during the primary contaminant inventory.

Floodplain – This is a coverage of the 100-year floodplains.

Group 1 Sites – These are sites that show elevated levels of contaminants and are not within the priority one areas.

Inorganic Priority Area – Priority one areas where greater than 25% of the wells/springs show constituents higher than primary standards or other health standards.

Landfill – Areas of open and closed municipal and non-municipal landfills.

LUST (Leaking Underground Storage Tank) – Potential contaminant source sites associated with leaking underground storage tanks as regulated under RCRA.

Mines and Quarries – Mines and quarries permitted through the Idaho Department of Lands.)

Nitrate Priority Area – Area where greater than 25% of wells/springs show nitrate values above 5mg/l.

NPDES (National Pollutant Discharge Elimination System) – Sites with NPDES permits. The Clean Water Act requires that any discharge of a pollutant to waters of the United States from a point source must be authorized by an NPDES permit.

Organic Priority Areas – These are any areas where greater than 25 % of wells/springs show levels greater than 1% of the primary standard or other health standards.

Recharge Point – This includes active, proposed, and possible recharge sites on the Snake River Plain.

RICRIS – Site regulated under **Resource Conservation Recovery Act (RCRA)**. RCRA is commonly associated with the cradle to grave management approach for generation, storage, and disposal of hazardous wastes.

SARA Tier II (Superfund Amendments and Reauthorization Act Tier II Facilities) – These sites store certain types and amounts of hazardous materials and must be identified under the Community Right to Know Act.

Toxic Release Inventory (TRI) – The toxic release inventory list was developed as part of the Emergency Planning and Community Right to Know (Community Right to Know) Act passed in 1986. The Community Right to Know Act requires the reporting of any release of a chemical found on the TRI list.

UST (Underground Storage Tank) – Potential contaminant source sites associated with underground storage tanks regulated as regulated under RCRA.

Wastewater Land Applications Sites – These are areas where the land application of municipal or industrial wastewater is permitted by IDEQ.

Wellheads – These are drinking water well locations regulated under the Safe Drinking Water Act. They are not treated as potential contaminant sources.

NOTE: Many of the potential contaminant sources were located using a geocoding program where mailing addresses are used to locate a facility. Field verification of potential contaminant sources is an important element of an enhanced inventory

Figure 3 – Susceptibility Report

Ground Water Susceptibility Report Public Water System Name : SPORTSMANS PARK BINGHAM COUNTY Well# : WELL

Public Water System Number 6060079 02/14/2001 8:31:55 AM

1. System Construction		SCORE				
Drill Date		07/20/1953				
Driller Log Available		YES				
Sanitary Survey (if yes, indicate date of last survey)		YES	1999			
Well meets IDWR construction standards		NO	1			
Wellhead and surface seal maintained		YES	0			
Casing and annular seal extend to low permeability unit		NO	2			
Highest production 100 feet below static water level		NO	1			
Well located outside the 100 year flood plain		YES	0			
	Total System Construction Score		4			
2. Hydrologic Sensitivity						
Soils are poorly to moderately drained		YES	0			
Vadose zone composed of gravel, fractured rock or unknown		NO	0			
Depth to first water > 300 feet		NO	1			
Aquitard present with > 50 feet cumulative thickness		YES	0			
	Total Hydrologic Score		1			
3. Potential Contaminant / Land Use - ZONE 1A			IOC Score	VOC Score	SOC Score	Microbial Score
Land Use Zone 1A	IRRIGATED CROPLAND		2	2	2	2
Farm chemical use high		YES	2	0	2	
IOC, VOC, SOC, or Microbial sources in Zone 1A		NO	NO	NO	NO	NO
	Total Potential Contaminant Source/Land Use Score - Zone 1A		4	2	4	2
Potential Contaminant / Land Use - ZONE 1B						
Contaminant sources present (Number of Sources)		NO	0	0	0	0
(Score = # Sources X 2) 8 Points Maximum			0	0	0	0
Sources of Class II or III leacheable contaminants or		YES	4	0	0	
4 Points Maximum			4	0	0	
Zone 1B contains or intercepts a Group 1 Area		NO	0	0	0	0
Land use Zone 1B	Greater Than 50% Irrigated Agricultural Land		4	4	4	4
	Total Potential Contaminant Source / Land Use Score - Zone 1B		8	4	4	4
Cumulative Potential Contaminant / Land Use Score			12	6	8	6
4. Final Susceptibility Source Score			8	7	7	7
5. Final Well Ranking			Moderate	Moderate	Moderate	Moderate